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THE MODERN PRACTICE

OF

RETOUCHING

AS PRACTICED BY

M. PIQUEPÉ,

AND OTHER EXPERTS,

FRENCH, ENGLISH, AND AMERICAN.

NEW YORK:
SCOVILL MANUFACTURING COMPANY.
W. IRVING ADAMS, Agent.
1882.

PREFACE.

In introducing to the American public the practical remarks of the skillful French retoucher, M. Piquepé, little need be said. Retouching is a branch of art that has taken firm root in all directions, and by its judicious use has conferred a beauty upon negatives previously unknown. It is to be regretted that some carry it to such an extent as to far transcend its legitimate functions and entirely destroy the likeness in the desire to flatter the subject.

It is well said that the legitimate functions of retouching are the removal of blemishes and the correction of such inequalities as those caused in the photographic reproduction of colors, which are often untrue to nature. Its debatable sphere is the softening of shadows and lines in the features in conjunction with attempts to alter the expression.

With these remarks we introduce M. Piquepé.

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The Modern Practice of Retouching.

CHAPTER I.

RETOUCHING—ITS USE AND PLACE.

The retouching of photographic negatives has become much more general during the last few years. I shall not here seek to prove the practical utility of it; the favor with which the custom has been received by photographers in general is a sufficient proof of it. Unfortunately, it has been in this as in all other arts: a great many indifferent operators, imagining that it was sufficient to work more or less on a face, to add or take away in certain places, without discretion, cleverness or taste, have rushed into this work and have produced results so grotesque and ridiculous that there are even now experienced persons who deny that retouching is a means of improving their work. This is certainly a mistake, because, though there are bad retouchers, yet there are very clever disciples of this new art. And this is so true that in many studios the operator trusts entirely to the skill of the retoucher. He troubles himself very little with his manipulations; he cares little whether his sitter is well or badly lighted; whether his negatives are free from spots or stains; if the negative is sharp and not too hard, the retouching, he thinks, will do all the rest. In other studios the operator is instructed to produce thin negatives without any vigor, but over-exposed and full of detail; no

bright lights are left, the whole is flat and dead, and the retoucher must give life to everything. This I do not hesitate to say is all wrong. Probably in this way the public get prints which flatter their caprice, but an experienced eye will soon detect the faults of these productions, and will condemn them at once from an artistic point of view, for everything is rounded and cut off; the figure and the background are stuck one on the other; there is no depth, no atmosphere—nothing but a mechanical work, sometimes cleverly done, but powerless to give truthful pictures.

Looking at it in this way, it is true that retouching has done more harm than good to photography; but it must be acknowledged that this sort of work is not general. There are photographers who have appropriated this new means to their requirements, only using it as a remedy for inevitable faults in photographic manipulations. These persons are right, and we all admire their works.

Therefore, I cannot lay it down too clearly that retouching, even when done by a real artist, should be considered only as a necessary continuation of very careful work; not that the part of the retoucher is inferior to that of the operator, but that the two should work so well together that the final result will be arrived at through the cleverness of both.

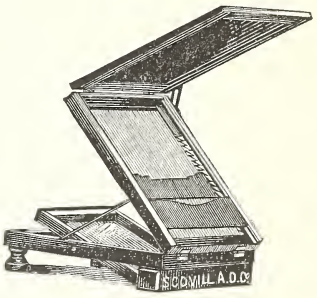
It is not everybody who can touch well. It is a work requiring a great deal of taste, lightness of hand, close application, and great patience, all of which qualities few people possess. But every photographer is capable of correcting in his negatives all faults which may occur, no matter how skilled the operator may be.

These are the means which I shall describe as clearly and practically as possible in the following pages, avoiding entering into superfluous details of science, or, rather, of anatomy, a knowledge of which being in no way indispensable, and which could only puzzle the learner, and in all probability lead him astray. Perhaps even a clever retoucher may learn some hints from them, while those who wish to learn the art will find, I am sure, clear explanations, and will be enabled to succeed at once, without going into a too exaggerated style of work.

CHAPTER II.

MATERIALS NECESSARY FOR NEGATIVE RETOUCHING.

The first thing wanted is an easel on which to work. This should be a piece of fine ground glass in a frame, on which the negative is placed The bottom of this frame has hinges as well as the top, which retain a cover of wood kept open by means of small supports, which are lying on the sides of the frame of the ground glass. The necessary slant is given to this by means of two other supports, entering at will into some notches on the edges of the surface of a flat and square box, of which the middle is covered by a looking glass reflecting the light under the negative. Several carriers, same size as the ordinary photographic glasses, and fitting one into the other, stop completely the light round the negative. A little movable rule goes up and down in front of the ground glass, and serves as a rest for the hand of the retoucher. This easel should be put upon a table before a window with a north aspect. As there should be no light except what illuminates the negative, a black blind should be thrown over the top, and to fall down each side. There are easels sold on purpose, and provided even with wooden shutters, which are kept open by hooks fitting into the top shutter. The retoucher is thus inclosed in a box, and gets no light except what comes through the negative.



The choice of pencils and brushes is very important. The

Grossberger and Kurz pencils, manufactured in Germany, I find the best. They are numbered, according to the strength of the tints they give, light or dark, No. 1 being the softest, and 2, 3, or 4 harder. These four numbers are sufficient for all work. For cutting these pencils use a little file, on which they should be rubbed, or very fine emery paper cut into narrow slips.

The brushes should be sable, and very soft. It is very difficult to get good brushes, so they should be chosen with great care. They must be pretty thick, not too long, and with a very good point. All this will be easily found out by dipping them in water and bending them about. If a brush, then, at once make a fine point, it is a good one.

The two colors most required in negative retouching are Indian ink and light blue. The first is the most opaque color, but as the tint is the nearest to the negative, it will permit of finer work.

A magnifying glass may be used, which will render some parts more apparent—for instance, if a very small head is being done—but for general work it magnifies the faults too much, and the general effect and modeling are lost in paying too much attention to detail.

Finally, stumps of different sizes, and a very soft camel hair brush for dusting the surface during the operation, will complete the list of necessary implements for the retoucher.

CHAPTER III.

DIFFERENT SURFACES FOR TOUCHING ON.

Many discussions have been raised as to which varnish gives the best surface for touching on, and many methods have been proposed. Gum arabic dissolved in water has long been used; but there are certain drawbacks to this method which have caused it to be very generally abandoned. The solution must not be too strong, or the pencil will not mark on it; and as, in damp weather, it is never perfectly dry, working on it is somewhat dangerous. Besides, the density both of the negative and of the touches on it changes after being varnished, and gum being so easily affected by damp, the collodion films will be sure to suffer more or less.

Dr. Van Monckhoven advises the use of a varnish composed as follows: Make a concentrated solution of carbonate of ammonia, to which add some ordinary shellac; let stand for twenty-four hours, and, having decanted off the clear part, add to it an equal quantity of water; heat this to boiling point, stirring all the time, and there will then be a brown solution of shellac in the proportion of eight parts to one hundred parts of water. Filter before use. This solution must smell of shellac; if it smells of ammonia, it will not have been properly prepared. Apply two coatings of this to the negative after it has been washed and drained. When dry the film is brilliant, insoluble in water, and hard enough not to require any other varnish if only a few prints are required. The negative can, however, be varnished as usual, and the second coating, being quite unable to penetrate the first, will not cause any change either in the density of the negative or the touches on it.

It has become very general of late to find retouching done on the varnish itself, though there are no varnishes made for touching on which quite answer the purpose; most of them do not take the pencil well enough to allow of a very fine and careful touching, while others fall into the other extreme, so that regular work is impossible. Besides, in most of the experiments in this matter, and in formulas given, people appear to think more about getting a soft surface than to get a strong protection for the collodion film, which appears to me to be a most important thing. For this reason I do not advise the use of any cold varnishes; they do not resist sufficiently the change of the temperature, and often cause the loss of negatives. However, as it is sometimes desirable to use a retouching varnish, I give the following formulas:

No. 1.

Shellac,	125 parts.
Gum sandarac,	120 "
Rosin,	5 "
Castor oil,	10 "
Alcohol,	500 "

Dissolve the gums in the alcohol, let stand a day, and add the castor oil.

No. 2.

No. 1.—Alcohol,	80 parts.
Sandarac,	15 "
Turpentine,	5 "
Oil of lavender,	4 "
No. 2.—Alcohol,	22 parts.
Ether,	2 "
Camphor,	5 "
Distilled water,	10 "

Mix the two solutions, let stand some days, and filter. This formula is very much used, and has even been patented in the United States.

No. 3.

Gum sandarac,	30 parts.
Castor oil,	6 "
Alcohol,	18 "

Dissolve the sandarac in the alcohol, and afterward add the castor oil.

These varnishes are to be used hot. The greatest drawback to them is that they depend too much on the amount of heating given to the negative. If applied too hot the surface is very brilliant, and so hard that the pencil leaves no mark; if, on the contrary, it has not been sufficiently heated, the film is soft, and scratches easily.

What appears to me to be the easiest and safest way is as follows: Use a very hard and brilliant varnish, and deaden the parts about to be touched with the following solution:

Pure turpentine,	100 parts.
Gum dammar,	5 "

Apply this to the varnish with a rather dry brush; let dry three or four hours. This may be used with all hot varnishes which do not contain castor or lavender oils.

Another method of making all varnishes fit for touching on is the following: With a piece of cotton wool take a little emery powder or cuttle-fish, and rub over the part to be touched till the surface becomes mat and takes the pencil mark easily. This operation should be done over the ground glass of the desk, great care being taken not to damage the collodion film by rubbing too hard. This way takes a longer time, and is less certain than the other; besides, the surface obtained is not always uniform, and the pencil, therefore, works irregularly.

CHAPTER IV.

HOW TO RETOUCH.

Before beginning to touch, the artist should examine his negative well, so as to decide what he will do to get the best effects. If the negative is faultless as to lighting, the half tints well defined, and the shadows are not too black, the work will be easy. There will only be the little inequalities of the skin to take out, to gently soften parts that always come out too hard, such as the shadows under the eyes, nose, and chin.

Always begin with the highest light, which is the most opaque part of the negative. Touch out all little transparent specks, which is done by *leaning* the point of the pencil, which must be very finely cut, on to the middle of the spot. The pencil must be so used that the lines made by it are not more opaque than the surrounding part of the negative, and put the touches as close together as possible, in order to get an even result. So that the whole shall blend well together, the point of the pencil must work over all the specks and spots that have to be eradicated, and go gradually downward from the forehead to the eye, then the nose, mouth, and chin, in one continuous motion.

If, when all this is done, the negative looks flat and thin, it will be necessary to think about giving effects of light. To do this, begin again at the upper part of the forehead; put a few well-rounded lines over the eyebrows, then a short line on the bridge of the nose, starting from a little below the eyebrow; then, further down, a point of light which will round off the end and bring it well in relief; the same on the upper part of the cheek bones, on the lips, and chin. All this must be done with a delicate hand, though the lights must be well

defined by the little fine touches, always avoiding a regular hatching appearance. The touches should become less opaque toward the lower part of the face; the principal lights being on the top of the forehead, over the eyebrows, the bridge of the nose, and the cheek bone; the side of the nose, the corners of the mouth, and the cheek being the middle tints, while under the eyebrows, the eyes, the line indicated by the aisle of the nose, underneath the nose, and the line of the chin, are in the deepest shadow.

With old people some lines and wrinkles may be taken out, but not all of them, or else the character of the face is lost.

With very thin faces avoid working too much on the hollows, on the forehead, temples, and cheeks, or the face will become too rounded, and the resemblance gone.

All these things must be determined upon by examining the negatives very carefully from different distances, as it is impossible to judge of the effect of the touches and the general harmony of the picture by looking at it closely.

It sometimes happens that the shadows under the eyes are too dark to be worked upon by the pencil. In this case a brush must be used, and Indian ink mixed with water. The brush must be very finely pointed, and with little color in it, and nearly dry; as, if the color is put on very wet, the density of the work would change in drying, and the retouching would be very rough and take longer to do. This mode of touching may be used with advantage on places where the pencil alone does not give a sufficiently strong tint.

Negatives that have been too much intensified with pyrogallic acid are very difficult to work upon, on account of the opacity of the lights and the hard transparency of the shadows. The same may be said of negatives taken with a weak silver bath, or under-exposed ones. As no one is likely only to have to do with perfect negatives, it will be useful to know what are the best means to be employed in order to improve imperfect ones. In the first place, as usual, a very black pencil must be used, also a brush and Indian ink, as just described, for the transparent shadows. Clean the back very well, and

pour on it, in the same manner as if collodionizing a plate, the following solution:

Gum sandarac, - - -	30 parts.
Gum mastic, - - -	30 "
Sulphuric ether, - - -	500 "
Pure benzole, from - -	150 to 400 "

The quality of the texture thus obtained depends on the quantity of benzole added. When dry, this should give an even white surface, almost like very fine ground glass, on which the pencil will work beautifully, and the touching, done with great discretion on the back of the negative, gives a very soft appearance to the prints. A finer work will be done on the parts which it has been impossible to finish on the collodion side. Thus, in places that are too transparent—in the hair, for instance, or the beard—put in a few lights; under the eyes and nose soften the shadows, which are always too strong in that part of the negative; and if the forehead, the cheek, and the lighted side be too dense, with a penknife scratch the varnish at these places, so that they may print through quicker, taking care to leave soft edges to avoid hardness in printing, which is easily done by cutting the outlines into indentures unequally pinked. By these means it will be easy to improve bad negatives, but the density will be then greater. The lighting of the clothing must now be proceeded with. All the parts requiring lighting must be gone over with a stump dipped in lead powder, following all the folds of the drapery, etc., applying the end of the stump to the middle of the part to be lit, and then softening off the edges with another larger and clean stump. This part of the work may also be done with a brush moistened with Indian ink. The results thus obtained are the same; therefore, the retoucher can choose whichever method he prefers.

Sometimes the white varnish does not give the required opacity; if so, the same varnish, to which add a few drops of a solution of iodine in alcohol, may be used. This will give a more or less yellow film, through which the light will pass slowly. Retouching can be done on this surface either by

means of a stump or brush; if the latter, the tint of the Indian ink may be softened down by tapping it with the end of a finger. These two varnishes are very hard and solid when dry.

Some work may be done with the pencil on the neck, shoulders, arms, and hands; but none of the lines of muscles should be touched. If these parts are too flat, they may be strengthened in the way previously described.

Any little spots or holes in the negative should be touched with Indian ink or light blue. It will be easily understood how useful this kind of touching may be when well done, as by means of it passable, or even bad negatives, may be made to give almost perfect prints.

Another way of giving a good effect to a negative is to dissolve some red aniline dye (fuchsine) in alcohol; add a few drops of this, according to the strength of tint desired, to a plain collodion; pour this on the back of the negative, removing it with a knife from the parts to be kept transparent. This method is not so good as the two varnishes previously described, because the surface is too tender to be worked upon by brush or pencil, and very apt to become scratched or rubbed off in printing. However, it may be used to get a considerable density on a very thin negative. In this case the back of the negative is covered with a layer of the solution, and when it is dry remove it from the most opaque portions, and varnish all over with benzole varnish, which will solidify the other and give a good surface for touching either with stump or brush.

CHAPTER V.

COPIES.

Negatives taken from old faded photographs are sometimes very difficult for retouching. Negatives enlarged from photographic cartes always have a very granular and bad effect, and this is inevitable, being the texture of the paper in the original. The best thing to do is to use a retouching varnish, then work with a pencil over all the parts that will take it, and finish off with a brush.

It is better to aim at general effect than great fineness in touching, for it will be found impossible, without going through very long and complicated work, to entirely get rid of the grain of the paper. Also, the retoucher should not have his eye too close to the negative. The transparent spots must be filled in by means of very fine lines drawn in the direction of the spots; then put in the lights without exaggerating them, having, if possible, the original at hand to compare with. If the negative is so flat that neither brush nor pencil will give the desired effect, use for a last operation the benzole varnish as previously described.

The reproduction of daguerreotypes is less difficult, the negatives being free from all texture; and as the polished silver plates show a very bright surface to the light, there will only be the modeling and general softening to be done. But sometimes the figure does not stand out well from the background. In this case the reproduced negative would be very much better, giving greater contrasts.

If the background is too dark, and it is thought desirable to lighten it, coat the back of the negative with a white or yellow varnish, leave it to evaporate for an instant, and, before it is

quite dry, run a line with a penknife all round the figure, from which remove the varnish, only leaving it on the background, which will then print much lighter. In removing the varnish, it must be remembered that it is better to leave a little line behind the figure than to scrape away too much. If it is only found necessary to lighten one side of the background, use benzole varnish, and then the stump, on the place wanted, taking care to soften the edge well by rubbing with the finger or cotton wool.

If, on the other hand, a white background has to be changed into a black one, or any ugly accessories have to be removed, proceed as follows: Put the negative on the touching easel, and, with a needle stuck into a piece of wood, follow the outline of the figure with great precision, scratching through the collodion film. In this operation the line should rather impinge upon the background than upon the figure. If the face is turned profile or three-quarter face, the operation is very delicate, and wants the greatest attention. The safest way will be to have the arm very firmly supported. In going round the hair will be scratched into indentures as fine as possible; for the drapery, etc., less delicate work is required. When the needle has been all round the edges, take a rather thicker point, and enlarge the line drawn by the needle. It will then be easier and quicker to remove all the rest of the background with a penknife. If this can be done on the collodion only, the surface, being soft, will take much less time, and the negative can afterwards be varnished in the usual way. If it has been done on a varnished surface, the rest of the film must be cleaned off with a few drops of alcohol rubbed on with some silver paper. This done, the whole line must be softened, as the needle will have left a hard, sharp line. With a fine brush and Indian ink stipple lightly all round, doing it with the point of the brush, and leaving a tiny space between each touch. This work must be done finer and closer as it approaches the face, and requires as much care as the scratching with the needle, as it is to this stippling that will be due a softness of outline in the prints which will make them resemble those done with a natural background. The back of the nega-

tive is then covered with either a white or a red varnish, according to the effect wished for. One of these varnishes should always be used to soften the outline, and make the background less hard.

Another way of getting black backgrounds is the following: Cover the whole of the background with a deep yellow color mixed with a little glycerine, having first of all with a brush drawn round the outline of the figure, and let dry. Print a copy of this, of which the background will be quite white; then cut out from it the figure, which is used as a mask by laying it on the negative while the background goes on printing. This is not so good a way as the other. In the first place, it is not easy to paint the line of demarcation perfectly; and then, being obliged to mask each print, it is almost impossible to get all the prints alike.

An intelligent artist, who, after a little practice, is able to utilize these various simple methods, will be surprised at the results he gets. Besides, what I have said about copies in particular, applies equally to all bad negatives. There are times when it would be very desirable to be able to render, by means of one of these methods, if not perfect, at least satisfactory, a negative which would have been judged unable to give a tolerable print, even submitting it in printing to the most complicated manipulations.

CHAPTER VI.

POSITIVES.

Positives that are taken in order to get enlarged negatives from are sometimes imperfect; it is advisable to give them some retouching which would give great facility for obtaining large negatives. If, for example, there was a scratch on the collodion of the small negative, and that had been touched out with too opaque a color, that would make a white place on the positive. In the same way a very hard negative would give, in the positive, faces too white, and drapery, etc., too black.

The work is done the same as in a negative, only in a reversed way, as if one were touching a print; the mark of the touching, whether done by brush or pencil, tending to hinder the light going through in the spot. When a positive is being taken, the parts not receiving light remain perfectly white—that is to say, transparent; in copying this positive, all these transparent places are at once penetrated by the light, so that all effects existing in the original negative will be exactly reproduced in the enlargement. It will, then, be easily understood that by touching on all these transparent places on the positive, the defect will be got rid of as it will be wanted—defects, besides, which it would be impossible to remove on the enlargement. It is only under these circumstances that I advise retouching on the positive; because, if the original negative is perfect, and also the positive from it, no touching will be required.

It is even better not to touch a small negative that is going to be enlarged, but to do it all on the enlargement, that being easier and quicker. If the positive requires much touching,

it is best done on gum. The negative, when fixed and washed, is covered with the following solution:

Gum arabic, - - -	6 parts.
Water, - - - -	100 "

If the positive is to be kept, it is better not to gum it, but varnish with a retouching varnish. I should not advise to use hard varnish. As there comes sometimes a sharp line of demarcation where the brush stops, this line is never visible on the prints and is hardly seen on the small negative; but on the enlargement it might show very much, and necessitate much labor in touching out. Still less should emery powder or cuttle-fish be used, which always give lines; all these means will be in this case completely eliminated.

The touching should be done with great moderation. The half tones required must be put in on the positive, leaving intact those parts which have been touched on the negative. It must be borne in mind that the negative is worked for obtaining the lights, and the positive for obtaining the shadows—that in the latter, in short, the effect is direct; the work will be, consequently, easier, as every touch shows the produced effect. The touches should be a little less deep in tone than the negative.

Among all the methods that I have described for the improvement of negatives, the retoucher will select the one which appears to suit him best.

CHAPTER VII.

ENLARGEMENTS.

It has not always been usual to touch enlarged negatives, and each print had to undergo a long and tedious operation, which, after all, very often gave but poor results. Besides, the color of the touches always remained the same, and as silver prints sooner or later always fade or turn yellow, the results were very bad. It will be found always best to do the touching on the negative.

The best negatives for this kind of work are very thin and transparent ones; that is to say, it is much better to have an under-exposed negative, provided it is not hard, than one full of detail, but fogged by over-exposure.

Either gum or varnish can be used. The retouching should be done boldly with long lines, endeavoring to give an even surface, without at first going too much into the modeling. The shadows should be carefully kept, only going over the too transparent spots which are reproduced from the small negative. In an enlargement from a small photograph, the texture coming from the original must be eliminated by means of the pencil or the brush. Some touches largely done with a big pencil will draw some lights in the hair, the outline of the eyes will be sharpened, the pupil rounded, the lips accented—in fine, the lights will be put in; but in this case it will be better not to work in the same way for these large negatives as it is usually done for the small ones. It would take a very long time to produce the necessary effect by means of the pencil alone. The best way will be as follows: Take a sheet of very fine tracing paper, or papier vegetal, damp it with a

sponge, and having run a line of gum round the back of the negative, stick the paper to it and let it dry. When dry, the paper should be perfectly flat and smooth, and will give an excellent surface for touching on. Proceed to touch as on ordinary negatives, with the stump and black-lead powder, softening down the hard shadows, taking care always to keep the half tones. This can all be done in a few minutes by a practiced retoucher, and, as it is not difficult to do, only requires a little habit and taste.

The lighting of drapery is done in the same way, the lines of the folds strengthened always keeping a gradation of tones. The shadows should be left as much as possible alone, as very little retouching is necessary on them. When the negative is transparent, and not much intensified, the tracing paper alone softens it very much. It will be seen that I here recommend what for small negatives I advised should not be done. The greatest pains should be taken to get small negatives that require as little touching as possible, because work that is done on the back of the glass gives to small prints a soft and mealy appearance, which is very unpleasant. But when we come to enlargements however good the negative is, there are always portions of it that require some touching—either lights that are not light enough, or shadows that are too hard, according to the value of the original. It is, therefore, much better to have to correct parts that are too transparent, rather than those which are too opaque, and the thickness of the glass is not appreciable in large negatives, and touching can be done on both sides of the glass without any loss of sharpness and vigor being apparent in the print.

The benzole varnish may be used instead of tissue paper, especially if the glass on which the negative is taken is not quite flat, and worked on in the same way with a stump. The effect may be judged of by looking through the negative with the collodion side toward the eye.

Both sides may be varnished, if required, with benzole varnish, as the touching is more easily done on this ground surface, and a greater softness is produced.

There is also a plan, which has been much talked of lately,

of putting tissue paper on both sides of the negative, and working on both the papers.

Each of these methods will be found successful, provided the negative is thin. Its density should determine which plan is to be followed—in fact it is a good way to decide beforehand that the negative shall only give the dark shadows and half tones; that the varnish or tissue paper shall give the whites; that the stump or pencil shall give the highest lights. The result will thus be obtained in a far simpler and better way.

But where there are large, hard negatives, neither of these methods is feasible. They must be treated as I have recommended that hard negatives should be. The whole of the print will not be so harmonious, though obtained with greater difficulty; for I repeat that retouching done as I have described, and on special kinds of negatives, offers no difficulty, and enables one to get an excellent print even from a very small and very bad original.

CHAPTER VIII.

LANDSCAPES.

In landscapes the sky is very often not light enough; according to the moment when the negative has been taken, the detail of foliage or building is somewhat lost on it, while a more opaque sky would improve the whole and give more relief. This is what should be done: After the negative is varnished and dry, go round the edge of all the picture part, whether foliage or buildings, with a brush and yellow paint, taking care to keep all the details without covering any of them. The yellow will be mixed with a little gum and glycerine. When the outline is drawn, cover all the rest with a large brush. The same thing should be done also on the back, so as to remedy any inequality in the color if it has been put on too thin. Besides, I advise not too put it on too thick, for fear of its splitting up, and carrying away the collodion film with it. Bates' black varnish* can also be used for this purpose; it does not crack, even when exposed to the sun. The following formula is also very good:

Spirit of turpentine,	1,000 parts.
Bitumen of Judea,	100 "
Wax,	40 "
Black,	20 "

Brushes used for this work should be kept in a bottle containing a little turpentine. The bottle of varnish must be well corked to prevent evaporation.

*Since the text above was written, the black varnish has been, in America at any rate, wholly supplanted by Gihon's Opaque.

A print taken from a negative treated in this manner will have a perfectly white sky, which will have a hard and disagreeable effect; it must be tinted afterward in printing, taking care to keep the horizon line lighter than the rest; or even some clouds may be printed in from another negative: the print will be softer and the effect more artistic. It is also possible to get clouds without any double printing by putting tissue paper on the back of the negative, and drawing some clouds on it. Some transparent parts should be left to give effect. Where touches have been put on too dark, they are easily removed by rubbing with a little crumb of bread. This does not require very fine work; the thickness of the glass will soften down what may appear too coarse. By following this method there is no risk of spoiling the outlines, and, what is of great importance in winter, the printing does not take so long. Indian ink may be used instead of the stump, as well as benzole varnish instead of tissue paper.

In landscape negatives, as well as in other negatives, all hard shadows should be softened, and the lights strengthened; but all the work should be done on the back of the glass. In foliage negatives taken with a bright sun, the nearest trees are often wanting in detail, while the more distant ones are quite sharp. Prints from these negatives have an unpleasant effect, the different lines of distances being too distinctly marked; this may be improved by touching with a brush, not too pointed, and Indian ink or blue, representing some leaves according to the lights which are already indicated. It is impossible to distinguish the trees retouched in that way from the others finely obtained on the negative.

Finally, if there any strong lights to be put on negatives for obtaining effects of snow, it is best done on the back of the negative, either on tissue paper or white varnish.

The same thing may be done in negatives of clouds which are sharply lighted by sunlight. If the shadows are too transparent, and the lights too hard, put in some half tones, and remove the varnish from the lights. If, on the contrary, the light parts are weak, strengthen them either with a stump or brush, and remove the varnish from the shadows. For posi-

tives and enlargements the same work has to be done, and always in the same way.

It will be seen, then, that in the art of retouching negatives it is only in the first step that any difficulty is to be met with, because, being the most important, all the rest follows from it, and is, so to speak, only the same thing differently applied. Therefore, with the knowledge of these few various methods, and a little taste and use, one may always be certain of getting good results.

PART SECOND.

THE ENGLISH METHOD OF RETOUCHING

Having in the foregoing pages given what may be termed the French or Paris style of retouching, as practiced by M. Piquepé, we next proceed to give the English or London method, as described in the *British Journal of Photography*, and which differs in no material respect from that practiced in New York.

CHAPTER IX.

PREPARING THE NEGATIVE FOR RETOUCHING.

The first and most important operation, to be carried out, is to prepare the surface of the negative so as to enable the pencil to bite. There are two methods of doing this, either of which may be made use of. The first is to roughen the varnish by an abrasive powder—finely powdered pumice stone, such as is to be purchased at many drug stores, being most preferred. It is important that the right material be purchased, there being a coarser and rougher kind made for the use of cabinet makers, which is quite unsuitable and would scratch the negative. It is employed by putting a pinch, or dusting a small quantity out of a muslin bag upon the place to be worked upon, and then rubbing it with the end of the finger with a circular motion till the surface is deadened, and a tooth like fine ground glass is given. The entire absence of gritty particles must be insured or minute scratches which would ruin a face would be the result. This method enables the greatest amount of opacity to be produced by the lead laid on, and hence is best for those negatives where large masses of bare glass have to be covered.

The second method to be described may be used in the majority of cases, and the abrasive method only occasionally, or the latter may be made use of entirely. We recommend the second method, with the very occasional employment of the other. The formula for the composition to be used is gum dammar, 20 grains; Venice turpentine, 5 grains; turpentine, 1 ounce. The gum is to be powdered and the mixture well agitated for a few minutes; it will then dissolve quickly, and the Venice turpentine will easily liquefy and mix with a little

shaking. If any difficulty is experienced in getting true Venice turpentine it may be replaced by one-half of its weight of ordinary black rosin. A drop of the solution is placed upon a small pledget of cotton wool, and rubbed for a moment over the surface to be worked upon so as to leave a mere visible trace behind (if too much be put on the surface will be too sticky or tacky). The negative is placed aside for a few minutes and is then ready for use, and a number of negatives may be done one after another so as to save time. A score of them may be treated in a couple of minutes, while with the pumice stone process each negative occupies perhaps half a minute or more—a length of time which when many require to be treated becomes a serious item.

An important point to be considered with regard to this treatment is: Does it injure the negative or render it liable to crack? The infinitesimally small quantity of gum left behind after the rubbing is not likely to harm any varnished surface, but to render the matter entirely free from doubt we have made inquiries among professional photographers who have employed the plan, and we have ascertained that, at any rate in five years, which was the oldest case we could trace, no harm whatever had occurred to the negative. Hence we may safely subject the most valuable negative to the process without any fear of danger.

Some retouchers make a special varnish which requires no after treatment to enable the pencil to bite, but our experience of such is not favorable. We do not consider them likely to be so durable as other well known, recognized negative varnishes, and the saving of time is so very slight that it does not conterbalance the inconvenience of having two kinds in use—one for negatives to be retouched and one for ordinary work—and they possess no other advantage over the methods we recommend.

We know one gentleman who possesses a touch so fine that he is able to retouch upon the dried film of an unvarnished negative, and we have seen one of a group where a large number of faces were so retouched by him; but this is a mere *tour de force*, not to be attempted in ordinary practice, and only

made use of by the artist in question under unusual circumstances.

We conclude this part of the subject by describing a method suitable for occasional employment by any one who wishes to improve a negative and has no special materials at hand. It is simply to dilute ordinary negative varnish with about an equal part of alcohol, pour on the negative *cold*, and allow to dry spontaneously. If the right proportion of alcohol be employed a surface of the most exquisite delicacy is obtained, but of rather too fragile a nature for ordinary workers. It possesses the advantage of being able to withstand a second coat of varnish applied with heat in the ordinary manner, and thus secures the retouching from all danger, with even the utmost amount of hard printing. On this latter account it may, at times, be of great usefulness, the other methods not allowing of any fixing of the penciling beyond that of mere surface nature, and for this reason we may give a little more fullness of details, the gentleman who communicated them to us informing us that he employed this method for one or two years, and liked the surface better than any he had ever worked upon previously.

The great point is to have the varnish diluted to the exact strength, and this can only be found by experiment. If too strong the varnish dries too bright; if too weak it leaves a dead and rotten surface, easily scratched, and taking too great a hold of the black-lead. Further, when a negative is under-exposed or forced in the development the film has a different texture and requires a modification of the varnish, greater strength being then needed. Instead of thickening the varnish a second coating—always cold—will almost, but not quite, answer as well.

The drawbacks to this process are the nicety required in adjusting the strength of the varnish and the great tenderness, even at its best, of the surface, which should be exactly analogous to the gloss of an egg-shell, and is most beautiful to work upon but for one defect, a special pencil being necessary.

Keeping to the mechanical aspect of the subject, we may now describe the pencils to be used—the great desideratum being one with a tough texture, and capable of taking a fine,

hard point. Such a one is the best octagonal black-lead pencils of Faber, which in contrast with many are, as a retoucher once observed to us, "almost capable of doing the retouching themselves."

It is desirable to have three or four different degrees of hardness of pencil so as to suit every class of work, the HH, H, F and HB being the most suitable. The H is for general work; the HH (the hardest of the four) for very fine and delicate execution and where little labor is required. The F and HB are suitable for heavier penciling when the shadows are heavy and considerable opacity is needed. It is customary to point them in a manner quite different from what one is usually accustomed to do. The lead is laid bare to the extent of almost an inch, and a more or less fine point given to it, according to the negative under treatment.

CHAPTER X.

THE EASEL AND LIGHTING.

Having now arrived at our surface for penciling upon and our pencils for working with, it is time to describe the stand for holding the negative, usually called a "retouching easel." All that is needed is a sloping board with a central aperture, and sustained at a proper angle by a leg or strut. From this, as a beginning, are built with greater or less convenience and variety of adjustments all the more expensive and elaborate stands. Some contrivance is required to keep negatives of various sizes in their places, which is often done by a series of frames fitting one into the other. The simplest and, we think, the best arrangement of the kind we are acquainted with is formed by means of a slight bar placed across the whole width of the stand, with grooved side pieces attached to clip the stand and retain the bar in its place. The bar is thus movable upwards and downwards, and clamped by the simple act of drawing one end a little downwards, and so tightening its hold upon the stand by means of the groove. It is also necessary to prevent the negative from receiving any light upon its upper (the prepared) surface, and this may be done by suspending a piece of black velvet, or even brown paper, over a wire or other support fastened to the stand. It will be found much better not to make this easel too diminutive, as it is apt to cramp the hands if sufficient room be not allowed.

The light is to be thrown upon the negative from below, and upon its due modulation depends much of the success with which the negative may be finished. There is much discrepancy of opinion among retouchers as to the kind of light to be employed, some preferring artificial, and others not caring to

work at all if they cannot have daylight. Very possibly the preference for artificial light may be due to the fact that so many photographers find it easier to work at their negatives when their day's work of negative producing, etc., is over, and they can keep to their pencil without interference, there being nothing so conducive to bad and uneven work as frequent interruption. When daylight is to be used the easel must be placed in front of a window commanding a view of the sky, and under the aperture should be placed a small mirror so arranged by means of a little packing that the retoucher, looking through the aperture, can see reflected in the mirror the sky in front of him.

For some negatives it is sufficient to place a piece of white paper in place of the mirror, while most others will require a piece of obscured glass, placed either between the mirror and the sky or between the negative and the mirror, as may be found most convenient—taking care, if the latter method be adopted, not to place the glass too close behind the negative or the grained surface will interfere with nicety of touch.

Those who employ artificial light generally prefer to have a slight blue tinge imparted to it to soften the heating and irritating effect which accompanies the flame of gas, etc. An ordinary kerosene lamp is preferred by many, but we find a good fishtail gas burner, fastened to a small stand, to be much more handy and equally useful—the former, of course, being preferred by those who have not gas connections at hand. The blue tinge may be produced by procuring an ordinary plain bedroom water bottle and filling it with water, and throwing into it a brushful of indigo color. This, placed in front of the light, softens and cools it in a most pleasant manner.

CHAPTER XI.

RETOUCHING DETAILS.

The negative being placed on the frame, as described, the light should be regulated according to its density—the greater the density of the negative the stronger the light required—taking care always to use the lowest degree of illumination consistent with the complete visibility of all detail and half tone. If too strong a light be used the retouching will show more forcibly than appears in the negative, and would ruin its delicacy. The aperture in the retouching easel should not be too large, or there will be a flood of light running into the eyes that will not only dazzle and tire them, but render the lighter and more delicate tones invisible. The plan we adopt is to have a sufficiently large aperture to see the greater part of a *carte* negative, for instance, and to diminish it while working by placing on the negative a piece of black card-board in which a hole about an inch in diameter has been cut out. The pencil is to be pointed in the manner described, the final "sharpening" being best given by a piece of emery paper or cloth not too fine, a little care being necessary to avoid breaking the long and fine point. The easiest and surest mode is to work the point by repeated strokes away from the body, and not to rub it sideways or backward and forward. This hint will be found very useful, as the breaking of half an inch of point is very irritating. We have not had much experience with "ever-pointed" leads, our preference being for the ordinary make of black-lead.

Our mode of practice is to take out of faces all freckles and marks, blotches of unequal color, etc., first, and then very carefully to make the smallest possible amount of alteration in

what is usually termed the "modeling"—that is, softening very heavy shadows and increasing the prominence of some of the leading lights. This is done by delicate "dabs" or dots, so to speak, with the point of the pencil, which must be made of the right intensity at once, as the depth cannot be increased by successive washes of color, as in painting, though if the retouching be done in very fine dotting or stippling, extra depth may be got by carefully filling in between the first pencilings.

The terms "stippling" and "hatching," as they are often employed, may be briefly described as dotting and lining respectively. When there are transparent parts requiring a considerable amount of intensity given to them it will be found next to impossible to do it at once, and then the only plan is to make the first retouching upon the *roughened varnish* as deep as possible, to soften by the aid of alcohol vapor, and then to heat strongly. This will fasten the retouching and allow another coat of varnish, quickly applied, to be given. After the spots are all taken out by stippling, the modeling may be done by hatching, making small lines only, as regular in size and distance apart as possible, and as much as can be done causing them to follow the lines or contours of the features, or those particular facial developments that are being worked upon. It is important that the hatching should be done in a regular manner, or a very scratchy and uneven effect will be produced. Great care must be taken to avoid crossing the lines, or making two strokes touching one another, this being a fertile source of "lumpy" or "scratchy" work, as it is forcibly called.

It will be found of great use, if not an actual necessity, to have a magnifier for especially delicate work—not to be made use of from beginning to end, but merely for particular portions of the work, and to aid a general scanning of the whole when completed, so as to pick out any unevenness or roughness. If used all through it causes the work, strange as it may appear, to be less real and flesh-like, and, we may almost say, less delicate. The glass should be of good width, so that both eyes can be used, and it is better if it can be affixed to a permanent support which will hold it at one distance from the

negative; and this will materially lessen the fatigue of the eyes in using it.

The hatching may be suitably begun at the forehead and finished at the lower part of the face, working from the highest lights to the shadows, and not *vice versa*. We do not intend to enter into a description of the anatomical development of the face, but, instead, we say go to nature. Every face will impart hints as to the leading lights and shadows under varying modes of illumination. A gentleman who was one of the earliest of retouchers in this country used to make a point of scrutinizing his own face in a mirror, observing the disposition of high lights and shadows under every possible variety of illumination, and he recommends the method still as being better than all the books in the world. To the younger members of the profession we, apart from its entire desirability from other points of view, strongly recommend a study of drawing; the benefit would be great in many ways.

We conclude by pointing out some alterations which may be made or avoided with advantage. One of the commonest faults of a photograph is the stern or "cross" expression so frequently seen, which is caused by a too strong light, or it is the natural expression of a face at rest. One of the chief seats of this expression is between the eyebrows. It is not caused by the perpendicular line or lines, more or less pronounced, always seen there in persons somewhat advanced in life, but is produced by the contraction of the eyebrow, which at the end nearest the nose will be found, when under this expression, to have taken an angular form, and produced a decidedly darker shadow underneath in the orbit. If the corner of this angle be taken off, and the heavy, dark shadow be slightly lessened, the effect at times is almost magical; and yet any one can see, by looking at a retouched negative, that very few retouchers are aware of this simple expedient, it being generally thought that the upright furrows cause the frown.

It is generally advised to heighten the toning of the eyelids. We can only say, except to such experienced artists as need no advice from us, "do not touch them," for in ninety-nine cases out of a hundred the face gets spoiled by such work. That

portion of the cheek nearest the nose should be most carefully and thoughtfully done; there is often a delicate shadow which is liable to be taken out by the unskilled retoucher with the effect of producing a swelled cheek. The line often found running down from the wings of the nostrils should be carefully lightened with the aid of the knowledge which would be obtained by a slight study of the artist's own face in a mirror. The difference between a smile and a sneer is caused by an almost imperceptible difference in the shading of this furrow that cannot be conveyed in words.

Finally, there is the corner of the mouth, where much may often be done if it be borne in mind that in a smile the corner of the lip is slightly turned up, and with a serious, grave or crying expression it takes an opposite direction. The hands may often be improved by taking out the swollen veins they frequently present in the photograph, though it often happens that this can only be done on each individual print.

We believe our instructions, if attended to, will be found to present nearly all that is necessary to learn—beyond what experience alone will teach—to enable any person to become a proficient retoucher.

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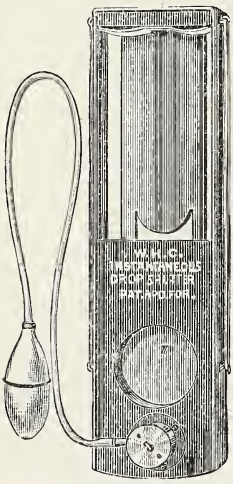

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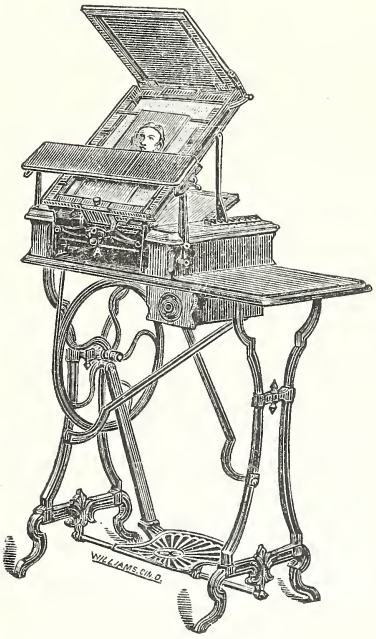

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